

Table 4c

Calculated Tier 2** Soil RBSLs* for Direct Contact Construction Receptor 0 - 10 feet bgs

| Effects c: carcinogenic n: non-carcinogenic | Tier 1 Soil RBSLs, mg/kg Direct Contact Construction Receptor | | Calculated Tier 2 RBSLs for Subsurface Soil Exceedances of Tier 1 RBSLs, mg/kg | | | | | | | | | | | |
|--|---|-----------------|---|-----------|-----------|-----------|-----------|-----------|---|---------|---------|--------|--------|--------|
| | Chemical / Analyte / Compound | 0 - 10 feet bgs | Tier 2 RBSL = Tier 1 RBSL X 10 / (number of Non-Carcinogenic Analytes > Tier 1 RBSLs) | | | | | | Tier 2 RBSL = Tier 1 RBSL X 10 / (number of Carcinogenic Analytes > Tier 1 RBSLs) | | | | | |
| | | | Number of Non-Carcinogenic Analytes > Tier 1 RBSLs | | | | | | Number of Carcinogenic Analytes > Tier 1 RBSLs | | | | | |
| | | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| For Gasoline & Light Hydrocarbons measured using the Montana Method for Volatile Petroleum Hydrocarbons (VPH) | | | | | | | | | | | | | | |
| c | MTBE | 9,100 | --- | --- | --- | --- | --- | --- | 91,000 | 45,500 | 30,333 | 22,750 | 18,200 | 15,167 |
| n | Benzene | 190 | 1,900 | 950 | 633 | 475 | 380 | 317 | --- | --- | --- | --- | --- | --- |
| n | Toluene | 14,000 | 140,000 | 70,000 | 46,667 | 35,000 | 28,000 | 23,333 | --- | --- | --- | --- | --- | --- |
| c | Ethylbenzene | 1,200 | --- | --- | --- | --- | --- | --- | 12,000 | 6,000 | 4,000 | 3,000 | 2,400 | 2,000 |
| n | Xylenes | 1,900 | 19,000 | 9,500 | 6,333 | 4,750 | 3,800 | 3,167 | --- | --- | --- | --- | --- | --- |
| n | Naphthalene | 120 | 1,200 | 600 | 400 | 300 | 240 | 200 | --- | --- | --- | --- | --- | --- |
| n | C9-C10 Aromatics | 4,000 | 40,000 | 20,000 | 13,333 | 10,000 | 8,000 | 6,667 | --- | --- | --- | --- | --- | --- |
| n | C5-C8 Aliphatics | 2,000 | 20,000 | 10,000 | 6,667 | 5,000 | 4,000 | 3,333 | --- | --- | --- | --- | --- | --- |
| n | C9-C12 Aliphatics | 3,000 | 30,000 | 15,000 | 10,000 | 7,500 | 6,000 | 5,000 | --- | --- | --- | --- | --- | --- |
| Lead Scavengers | | | | | | | | | | | | | | |
| c | 1,2-Dichloroethane (DCA) | 100 | --- | --- | --- | --- | --- | --- | 1,000 | 500 | 333 | 250 | 200 | 167 |
| c | 1,2-Dibromoethane (EDB) | 7.3 | --- | --- | --- | --- | --- | --- | 73 | 37 | 24 | 18.3 | 14.6 | 12.2 |
| For Diesel & Heavy Hydrocarbons measured using Montana Method for Extractable Petroleum Hydrocarbons (EPH) | | | | | | | | | | | | | | |
| n | C9-C18 Aliphatics | 6,000 | 60,000 | 30,000 | 20,000 | 15,000 | 12,000 | 10,000 | --- | --- | --- | --- | --- | --- |
| n | C19-C36 Aliphatics | 1,600,000 | 16,000,000 | 8,000,000 | 5,333,333 | 4,000,000 | 3,200,000 | 2,666,667 | --- | --- | --- | --- | --- | --- |
| n | C11-C22 Aromatics | 33,000 | 330,000 | 165,000 | 110,000 | 82,500 | 66,000 | 55,000 | --- | --- | --- | --- | --- | --- |
| n | Acenaphthene | 10,000 | 100,000 | 50,000 | 33,333 | 25,000 | 20,000 | 16,667 | --- | --- | --- | --- | --- | --- |
| n | Anthracene | 50,000 | 500,000 | 250,000 | 166,667 | 125,000 | 100,000 | 83,333 | --- | --- | --- | --- | --- | --- |
| c | Benz(a)anthracene | 390 | --- | --- | --- | --- | --- | --- | 3,900 | 1,950 | 1,300 | 975 | 780 | 650 |
| n | Benzo(a)pyrene | 15 | 150 | 75 | 50 | 38 | 30 | 25 | --- | --- | --- | --- | --- | --- |
| c | Benzo(b)fluoranthene | 390 | --- | --- | --- | --- | --- | --- | 3,900 | 1,950 | 1,300 | 975 | 780 | 650 |
| c | Benzo(k)fluoranthene | 3,900 | --- | --- | --- | --- | --- | --- | 39,000 | 19,500 | 13,000 | 9,750 | 7,800 | 6,500 |
| c | Chrysene | 39,000 | --- | --- | --- | --- | --- | --- | 390,000 | 195,000 | 130,000 | 97,500 | 78,000 | 65,000 |
| c | Dibenzo(a,h)anthracene | 39 | --- | --- | --- | --- | --- | --- | 390 | 195 | 130 | 98 | 78 | 65 |
| n | Fluoranthene | 5,000 | 50,000 | 25,000 | 16,667 | 12,500 | 10,000 | 8,333 | --- | --- | --- | --- | --- | --- |
| n | Fluorene | 40 | 400 | 200 | 133 | 100 | 80 | 67 | --- | --- | --- | --- | --- | --- |
| c | Indeno(1,2,3-cd)pyrene | 390 | --- | --- | --- | --- | --- | --- | 3,900 | 1,950 | 1,300 | 975 | 780 | 650 |
| n | Naphthalene | 120 | 1,200 | 600 | 400 | 300 | 240 | 200 | --- | --- | --- | --- | --- | --- |
| n | Pyrene | 15,000 | 150,000 | 75,000 | 50,000 | 37,500 | 30,000 | 25,000 | --- | --- | --- | --- | --- | --- |
| c | 1-Methylnaphthalene | 1,400 | --- | --- | --- | --- | --- | --- | 14,000 | 7,000 | 4,667 | 3,500 | 2,800 | 2,333 |
| n | 2-Methylnaphthalene | 200 | 2,000 | 1,000 | 667 | 500 | 400 | 333 | --- | --- | --- | --- | --- | --- |

*Refer to RBCA Guidance Appendix B for derivation of Risk-Based Screening Levels (RBSLs)

mg/kg = milligrams per kilogram

**Refer to RBCA Guidance Section 4.0 for details of Tier 2 Evaluation Process and calculation of Tier 2 RBSLs

bgs = below ground surface